




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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,333	12/20/2001	John Leroy Silvers	4191-001A	4923
9629	7590	04/06/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			YAO, KWANG BIN	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/022,333	<b>Applicant(s)</b>  SILVERS, JOHN LEROY	
	<b>Examiner</b> Kwang B. Yao	<b>Art Unit</b> 2667	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 19, 20 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Hreha et al. (US 6,341,247).

The admitted prior art disclose a method of conveying over a common transmission medium without mutual interference, information from plurality of incoming binary bit streams comprising the following features: regarding claim 19, a. rendering each binary bit stream unique; and b. simultaneously transmitting the plurality of streams as disharmonic chords over the common transmission medium; regarding claim 20, receiving a disharmonic chord, separating the chord into individual streams, and decoding each stream to recover binary information carried thereby. See pages 4-9 of the instant application. The admitted prior art does not disclose the following features: regarding claim 19, rendering each binary bit stream unique by assigning to it **a respective primary number frequency component**, whereby the

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resultant bit stream is converted into a **prime frequency component stream whose content depends on a prime frequency** assigned to the binary bit stream; and b, simultaneously transmitting the plurality of **prime frequency component streams** as disharmonic chords over the common transmission medium; regarding claim 20, separating the chord into **individual prime frequency component streams**, and decoding each **individual prime frequency component stream** to recover binary information carried thereby. (Emphasis added).

Hreha et al. discloses a communication system comprising the following features: rendering each binary bit stream unique by assigning to it a respective primary number frequency component, whereby the resultant bit stream is converted into a prime frequency (column 5, lines 14-37) component stream (Fig. 2, e1, or e2 or em; column 4, lines 57-62) whose content depends on a prime frequency (column 5, lines 14-37) assigned to the binary bit stream; and b, simultaneously transmitting the plurality of prime frequency (column 5, lines 14-37) component streams (Fig. 2, e1, e2, em; column 4, lines 57-62) as disharmonic chords over the common transmission medium; regarding claim 20, separating the chord into individual prime frequency (column 5, lines 14-37) component streams (Fig. 2, e1, e2, em; column 4, lines 57-62), and decoding each individual prime frequency (column 5, lines 14-37) component stream (Fig. 2, e1, or e2 or em; column 4, lines 57-62) to recover binary information carried thereby. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of the admitted prior art by using the features, as taught by Hreha et al., in order to provide an efficient communication system by eliminating the sub-harmonics. See Hreha et al., column 5, lines 33-37.

***Allowable Subject Matter***

4. Claims 1-18 are allowed.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO  
PRIMARY EXAMINER



Kwang B. Yao  
March 25, 2005